R E P O R T R E S U M E S

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TO DETERMINE THE EFFECTIVENESS OF PROGRAMED INSTRUCTION IN TEACHING THIRD, FOURTH, AND FIFTH GRADE CHILDREN HOW TO USE THE CARD CATALOG. FINAL REPORT.

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A PROGRAMED INSTRUCTION UNIT WHICH USED PICTORIAL AND SIMULATION TECHNIQUES WAS DEVELOPED TO TEACH STUDENTS HOW TO USE THE CARD CATALOG. ITEMS INVOLVED IN THE UNIT INCLUDED A PROGRAMED TEXTBOOK, A SPECIAL CARD CATALOG, AND A PRACTICE SET OF BOOKS. SUBJECTS WERE STUDENTS FROM GRADES 3, 4, AND 5 WHO WERE DIVIDED INTO AN EXPERIMENTAL AND A CONTROL GROUP. ALL SUBJECTS WERE PRETESTED ON SUCH ITEMS AS (1) LOCATION OF THE AUTHOR'S NAME, (2) USE OF THE CALL NUMBER, (3) SHELVING OF BOOKS, (4) FILING OF ABBREVIATED TITLES, AND (5) PREPARING A SIMULATED CARD. UPON COMPLETION OF THE ACTIVITIES, ALL SUBJECTS WERE PERFORMANCE TESTED AND POST-TESTED WITH A REARRANGED VERSION OF THE PRETEST. PERFORMANCE SCORES WERE NOT AS EXPECTED. NO SIGNIFICANT DIFFERENCES WERE FOUND BETWEEN THE GROUPS FOR PERFORMANCE TIME OR SCORE. THE RESULTS INDICATED SEVERAL NEEDED CHANGES--(1) THE WRITTEN TEST SHOULD BE MADE MORE RELIABLE, (2) ADJUNCT PROGRAMS ON SEARCHING FILE TRAYS AND LIBRARY SHELVES WERE NEEDED, (3) THE PERFORMANCE TEST NEEDS REFINEMENT OF TIMING TO SUIT THE AGE LEVEL OF THE STUDENTS, AND (4) THE LOCATION OF BOOKS IN THE LIBRARY SHOULD BE TAUGHT ALONG WITH THE PROGRAM. (AL)

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TO DETERMINE THE EFFECTIVENESS OF PROGRAMED INSTRUCTION IN TEACHING THIRD, FOURTH, AND FIFTH GRADE CHILDREN HOW TO USE THE CARD CATALOG

FINAL REPORT
on
Research Conducted Under
Bureau Number: 5-8080
U.S. Office of Education

SUBMITTED BY
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June 15, 1965- December 31, 1965

TO DETERMINE THE EFFECTIVENESS OF PROGRAMED INSTRUCTION IN TEACHING THIRD, FOURTH, AND FIFTH GRADE CHILDREN HOW TO USE THE CARD CATALOG

This research was to determine the effectiveness of a programed instruction course in teaching third, fourth, and fifth grade children how to use the card catalog. The effectiveness was determined both by grade level and reading ability.

PROCEDURES

A programed instruction unit was developed which used pictorial and simulation techniques. Three items were involved in the programed unit, a programed textbook, a special card catalog, and a practice set of books. The programed textbook used branching techniques and consisted of four parts. Part one contained an introduction to the concept of call numbers and the material on the author card. Part two dealt with title cards, part three with subject cards, and part four with all three types of cards when filed together.

The second item was the card catalog to which the students were referred from the program. In this card catalog there was one tray which contained only author cards, and the only information on the cards was the author's name, the title of the book, and the call number. A second tray of the card catalog contained only title cards; these cards listed the title, the author, and the call number. The third tray contained only the subject cards which listed only the subject, the author, the title, and the call number. The fourth tray of the card catalog contained all three types of cards; author, title, and subject. In addition the cards in the fourth tray had dashes to simulate the other material which is on the usual catalog cards.

The third item involved in the programed unit was the shelf of practice books. The books all had plain brown covers and the call numbers were put on the spines with tabs. Inside the cover of each book was a list of numbers to which the student was referred from the programed textbook. Each number told the student where to return in the programed textbook.

When the student started the program he was told to follow the frame numbers, that he would be required to look up information in the catalog trays, and he would be referred to the books which in turn would refer him back to the right frame of the programed textbook. When the student got the correct call number he would continue with the main line of the program; if he got an incorrect number, it would branch him to remedial material. The student had actual experience in finding call numbers by author, title, and subject. He also found books on the practice shelf by Dewey decimal call numbers. The very last part of the programed textbook showed the student a regular card from the card catalog including all extra information printed on it and required the student to find a book in his school library using his school library catalog.

The students in the Control group did not receive any instruction in the use of the library while the experiment was being conducted.

During scheduled library periods all of the students were read stories in place of being given instruction in the use of the library.

The subjects for the experiment were all students from the third, fourth, and fifth grades in the University School of Southern Illinois University. All three grades had taken the Henmon-Nelson Test of Mental Ability as part of the school testing program. These scores were used for the Ability ratings. The third grade had taken the Sixties edition of Basic Reading Test which accompanied Roads to Follow published by Scott Foresman, the total reading scores were used. The fourth and fifth grades had taken the Iowa Basic Skills test, only the reading scores were used.

All of the students were pretested with a written examination over the card catalog (Appendix A). This examination covered such items as the location of the author's name on the catalog card, what the call number is for, how the books in the library are shelved, how titles that begin with abbreviations are filed. On some of the questions the student was required to write author, title, or subject in the appropriate place on a simulated card. The simulated card had lines to indicate indentation and location of material from the top of the card.

These lines could be misleading to the student, so the answers were graded as follows: If the student was to write the author's name for an author card and he put it on the top line (which was indented), he received one point; if he wrote it on the second line where it belongs, he received two points, and for any other answer he received no points. This gave the student credit for knowing that on an author card, the author's name is on the top line, although on this simulated card the top line was indented when it should not have been. There were eighteen items on the test with a possibility of twenty-six points. The test was validated against the judgment of the University School librarian in regard to the content of the test and the best way of presenting the material.

The Spearman-Brown test of reliability was .53 for the third grade, .68 for the fourth grade, and .36 for the fifth grade.

The students within each class were ranked according to their pretest scores and assigned alternately to either the Experimental or Control group.

All of the subjects were told by the librarian that they were helping the author evaluate his program. They were also told that those who did not take the program (the Controls) would have a chance to take the program after the evaluation phase if they so desired, and the importance of not discussing the material with each other was emphasized. This was done to minimize discussion of the program content between the Experimental and Control groups.

The third grade students were the first students to take the program. The classroom teacher sent two students to the library and each student was put to work on his own program. When one student finished the program and found the required book in the library, he went back to his room and another student came to start on the program. The students worked entirely by themselves and could take as much time as they wanted. When the third grade students finished the program, the fourth grade students and then the fifth grade students took the program. Four to eight subjects went through the program during a school day. All of the Experimental students in each class completed the program within two or three days.

Two or three days after each class finished the program, all of the students in each class, both Experimental and Control groups, were given a posttest. The posttest was the same as the pretest with items rearranged and different author's names substituted where appropriate. After the class had taken the posttest they began taking the performance test.

The performance test was adopted from the performance test by Wendt and Rust for use at the university level.[1] Only one student at a time was given the performance test and he was rated by one of three proctors as he went through the process of finding a book. There was a performance card for each student on which was indicated the starting and stopping time, the catalog trays used, the tier and row of bookshelves used, the number of times the student returned to the catalog, and any comments pertaining to the student's actions. Such things as how the student searched the file tray and any questions he asked the proctor were noted on the card. The student found three books, one each by author, title, and subject.

The subjects came in random order (determined by the classroom teacher) and the proctor did not know if they were from the experimental or control group. The performance score for each task was figured on the quality of performance as indicated by the actions in the above categories and the comments for each student as noted on the performance card. The scoring involved some subjectivity and was all done by the same evaluator.

RESULTS

Third Grade:

The third grade Experimental group contained ten students and the Control group contained eleven students. The Experimental and Control groups were

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[1] Paul Wendt and Grosvenor Rust, To Test Refinements in Intrinsic Programing in Pictorial, Audio, and Performance Frames to Maximize the Probability of Desired Terminal Behavior, Final Report U.S. O.E. Grant No. 7-23-0907-189. Carbondale, Illinois, Southern Illinois University, 1965.

not significantly different on the written Pretest nor in Ability. On Reading the groups were significantly different at the .01 level when using a two-tailed test. Because of this significant difference, analyses of covariance which controlled for reading were used to evaluate differences between the Experimental and Control groups on the dependent variables.

TABLE I

Means and t's, Third Grade

	Experimental (N=10)	Control (N=11)	t (df=19)
Pretest	13.80	11.27	< 1
Ability	119.00	115.25	< 1
Reading	91.30	81.27	3.03*

*p < .01 (two-tailed)

The F ratios obtained from the covariance analyses for Performance Time, Performance Score, and Gain Score (Posttest minus Pretest) were not significant, although the F-ratio for Gain did approach significance at the .05 level. Many of the third grade children only found one of the three books in the fifteen minute performance test period. For this reason the third grade Performance Time was figured for only one book.

TABLE 2

Analysis of Covariance Controlled for Reading, Third Grade

	Gain			Performance Time					
Source	df	Ms''	F	df	Ms'	F	df	Ms'	F
Between	1	30.61	3.86*	1	23.35	1.61	1	171.49	.95
Within	18	7.92		18	14.47		18	180.59	

*p < .10 -- approached significance at the .05 level

When the Experimental and Control subjects were compared on the frequency distribution, showing the number of books found within the time limit of the performance test, definite differences in favor of the Experimental group were observed. In the Experimental group, six subjects found all 3 books, three found 2 books, and only one found 1 book. In the Control group, only two subjects found 3 books, two found 2 books, and seven found 1 book.

TABLE 3

Number of books found in the Performance Test, third grade

Number of books found	Experimental	Control
1	1	7
2	3	2
3	6	2

The correlations for Reading with Pretest were r = .63 for the Experimental group and r = .51 for the Control group. For Reading with Ability the correlations were r = .45 Experimental and r = .19 Control. The correlations for Reading with Gain were r = -.52 Experimental and r = .36 Control.

The -.55 correlation for Reading with Performance Time indicates that there was some relation between Reading with Performance Time for the Control group. The r = -.05 for Reading with Performance Time for the Experimental group indicates that there was no relation between Reading and Performance Time. For Reading with Performance Scores there was a high degree of relation for the Control group, r = .82, and no relation for the Experimental group, r = -.07.

TABLE 4

Correlations Between Reading and Other Factors, Third Grade

	Experimental	Control
Reading · Pretest	.63	.51
Reading · Ability	.45	.19
Reading · Gain	-.52	.36
Reading · Perf. Time	-.05	-.55
Reading · Perf. Score	.07	.82

Correlations were also computed comparing Ability with the following: Pretest, Gain, Performance Time, and Performance Score. The Ability with Gain correlations are negligible, r = -.01 Experimental and r = -.18 Control. The Ability with Pretest correlations are unexpectedly quite different in magnitude, the Experimental r = .04 and the Control r = .61. There is no indication as to what may have caused this difference.

The correlation of .98 for Ability with Performance Score for the Control group indicates a very high relation between ability and the efficiency with which students were able to use the library. For the Experimental group the correlation was .53, indicating only a moderate relation between ability and use of the library. The differences between these correlations, r = .98 Control and r = .53 Experimental, seem to indicate that the programed material tended to make the student's ability to use the library less dependent upon his ability as measured by an IQ test.

TABLE 5

Correlations Between Ability and Other Factors, Third Grade

	Experimental	Control
Ability · Pretest	.04	.61
Ability · Gain	-.01	-.18
Ability · Perf. Time	-.40	.18
Ability · Perf. Score	.53	.98

The third grade students took an average of 1 hour 44 minutes to complete the programed material. This did not include two students who did not complete the program. These two students were dropped from the analyses because of incomplete data.

Fourth Grade:

The fourth grade Experimental group contained thirteen students and the Control group contained twelve students. The t-tests for Pretest, Ability Reading, Performance Time, and Performance Score indicated no significant differences between the Experimental and Control groups on these factors. The t for Gain significantly favored the Experimental group (t-4.39) at the .001 level of confidence when using a two-tailed test.

TABLE 8

Means and t's, Fourth Grade

	Experimental (N=13)	Control (N=12)	t (df=23)
Pretest	11.54	12.42	-0.19
Ability	126.33	119.08	1.72
Reading	73.00	69.58	0.46
Gain	6.61	0.33	4.39*
Perf. Time	15.38	16.42	-0.01
Perf. Score	49.08	50.58	-0.26

*p < .001 (two-tailed)

There was a moderate correlation (r=.42) for Reading with Pretest for the Control group and no correlation (r=.07) for the Experimental group. The lack of correlation for the Experimental group does not follow the pattern of other grades for this same factor. There was a moderately high correlation of r=.63 Experimental and r=.74 Control for Reading with Ability. The Reading

with Gain correlations were the reverse of the same correlations for the third grade. In the fourth grade the Reading with Gain correlations were r=.20 Experimental and r=-.52 Control while for the third grade they were r=-.52 Experimental and r=.33 Control. The Reading with Performance Time correlations were r=.31 Experimental and r=-.46 Control. For Reading with Performance Score the correlations were r=.17 Experimental and r=.62 Control, indicating that the programed material tended to reduce the importance of reading for Performance Score.

TABLE 7

Correlations Between Reading and Other Factors, Fourth Grade

	Experimental	Control
Reading · Pretest	.07	.42
Reading · Ability	.63	.74
Reading · Gain	.20	-.52
Reading · Perf. Time	-.31	-.46
Reading · Perf. Score	.17	.62

The fourth grade students took an average of 1 hour 20 minutes to complete the programed material.

Fifth Grade:

The fifth grade Experimental group contained eleven students and the Control group contained twelve students. The t-tests for Pretest, Ability, Reading, Performance Time, and Performance Scores indicated no significant differences between the Experimental and Control groups on these factors. The t-test for Gain was 4.94, which was significant at the .001 level in favor of the Experimental group when using a two-tailed test.

TABLE 8

Means and t's, Fifth Grade

	Experimental (N=11)	Control (N=12)	t (df=21)
Pretest	13.91	13.58	0.28
Ability	125.09	117.17	1.55
Reading	85.09	71.25	2.02
Gain	7.18	1.75	4.94*
Perf. Time	9.09	12.42	- 1.26
Perf. Score	56.18	51.25	1.53

*p < .001 (two-tailed)

The fifth grade correlations for Reading with Pretest were r= .41 Experimental and r= .30 Control. For Reading with Ability the correlations were substantial, r= .78 Experimental and r = .83 Control. There was no correlation between Reading and Gain, the results were r= -.05 Experimental and r= .09 Control. The Reading with Performance Time correlations were r= -.82 Experimental and r= -.36 Control, and the Reading with Performance Score correlations were r= .68 Experimental and r= .45 Control.

TABLE 9

Correlations Between Reading and Other Factors, Fifth Grade

	Experimental	Control
Reading Pretest	.41	.30
Reading Ability	.78	.83
Reading Gain	-.05	.09
Reading Perf. Time	-.82	-.36
Reading Perf. Score	.68	.45

The fifth grade students took an average of 1 hour 17 minutes to complete the programed material.

Fourth and Fifth Grades Combined:

The fourth and fifth grades had been tested with the same reading tests, and analysis were made with these two groups combined. These results followed the pattern of each of the grades, that is, no significant differences between the Experimental and Control groups on Pretest, Ability, Reading, Performance Time, and Performance Score. There was a significant difference on Gain, in favor of the Experimental group. The t for the Gain was 2.03, which is significant at the .05 level of confidence.

TABLE 10

Means and t's, Fourth and Fifth Grades Combined

	Experimental (N=24)	Control (N 24)	t (df=46)
Pretest	12.62	13.00	- 0.12
Ability	120.50	118.12	0.71
Reading	78.54	70.42	1.53
Gain	3.88	1.04	2.03*
Perf. Time	13.04	14.42	- 0.31
Perf. Score	52.33	50.92	0.42

*p < .05

For the fourth and fifth grades combined, the only correlations of rather high magnitude were for Reading with Ability, .71 Experimental and r=.78 Control. All other correlations tended to mediate any differences between the two grades and the correlations were moderate and low.

TABLE 11

Correlations Between Reading and Other Factors, Fourth and Fifth Grades

		Experimental	Control
Reading	Pretest	.20	.37
Reading	Ability	.71	.78
Reading	Gain	.16	-.23
Reading	Perf. Time	-.53	-.40
Reading	Perf. Score	.33	.54

The librarian was present when the children studies the programed material and she worked with the students before and after the experiment was conducted. (Throughout the year each class has two regularly scheduled library periods each week.) She was impressed with the concentration of the students as they took the program. The students worked continuously at the program, using the programed textbook, the cards, and the practice bookshelf with no apparent loss of interest. Even the third grade students, some of whom took over two hours on the program, did not lose interest and refused offers of being allowed to return to the classroom (for a "break") and then finishing the program the next day.

The librarian reported that the students learned the professional terms of the library very well. After having gone through the program such terms as author, title, and call number were used spontaneously by the students in place of "who wrote the book," "the name of the book," and "the number on the end of the book." During the library periods after the experiment had been run, the Experimental students continuously answered all of the questions on material which was new to the Control group. The librarian finally asked them not to raise their hands so the other students would have a chance.

The interest of the Experimental students was eventually carried over to the Control group. After the completion of the experiment and the resumption of regular library classes, many of the Control students desired to go through the program. This seemed to be a genuine interest and was probably due to the reaction in the library periods just described and to the fact that the Experimental students had an air of confidence about them when using the card catalog.

The librarian reported more interest in and activity around the card catalog since the experiment. This interest filtered down into the first and second grade. Although the first and second graders were not using the card catalog, they expressed an unusual desire (for lower grade students) to be able to use it.

CONCLUSIONS

The only significant differences were on the written test. The third grade Gain approached significance at the .05 level and both the fourth and fifth grade gains were significant a t the .001 level. When the fourth and fifth grades were combined the Gain was significant at the .05 level. The reliabilities for the written test low to moderate with little stability among grades, caused one to question the reliability of the results reported for Gain.

There were no significant differences between groups at any grade level for Performance Time or Performance Score. The Performance ratings were confounded by the lack of adjunct skills and the need for a more refined rating scale for this age student. Some students did not know how to search file trays (apparently deficient in alphabetizing knowledge) and library shelves, two skills which are needed before a refined performance rating can be secured. For the third grade the differences in the numbers of books found by the Experimental and Control groups was very great. Only two Control students found three books while six Experimental students found three books. And at the low end, seven Control found only one book and only one Experimental found one book.

The correlations for Reading with Performance Time and Reading with Performance Score both show the same pattern for the three grades. For grades three--four--five, the Control group correlations decrease from moderate--low-moderate--low, and from very high--moderate--low-moderate, for Time and Score respectively. The same correlations for the Experimental group show reverse pattern, the increase from no correlation--low-very high and from no correlation--low--high.

TABLE 12

Correlations for Reading with Performance

Grade	Experimental		Control	
	Perf. Time	Perf. Score	Perf. Time	Perf. Score
3	-.05	-.07	-.55	.82
4	-.31	.17	-.46	.62
5	-.82	.68	-.36	.45

For the Experimental subjects, the patterns indicate that the programed material was the most effective for reducing the reading factor for the third grade, leass effective for the fourth grade, and the least effective for the fifth grade.

The correlation patterns for the Control indicate that reading is more important for the third grade, less important for the fourth grade, and least important for the fifth grade, and reading is more closely related to Performance Score than it is to Performance Time.

In general the experiment indicates that third, fourth, and fifth grade children can be taught material about the card catalog with programed materials. Programed material will hold the student's interest for well over an hour, although this long period is not necessarily recommended.

DISCUSSION

The poor reliability of the written test must be improved. This was a pilot study and it points up the need for a much improved written examination. The students in the grades involved had a rather wide range in background at the time the experiment was conducted. The third graders had an introduction to the card catalog, indicating to them that the card catalog is an index to all of the books in the library. The fifth graders had two more years of library work and they should have known most of the details about the card catalog. The results tend to indicate that the most efficient work can be done at the third and fourth grade level, when using programed material to teach the use of the card catalog.

The performance scores were not as expected. By using simulation techniques, it was hoped that the performance by the Experimental group would be significantly better than that of the Control group. Several things might have accounted for the lack of significant difference. There should be some adjunct programs in searching file trays and library shelves, skills which are needed to efficiently use the card catalog and library. The performance test needs refinement to suit it to the age of the student possibly in the timing the various steps involved in finding the correct call number and then the book, as well as a total time for the complete act. The location of the various types of books within the school library should be taught with the program. Many students, both Experimental and Control, began with the "story books" or the "Biography" books, and became frustrated before being told where the Dewey decimal books were located.

Some of the side effects were quite gratifying. The general interest of the students in the card catalog indicates that this age students wants to be able to find things by himself. The librarian was very pleased with the use of technical terms and the retention of the students after several months had passed.

The fact that the students, including third graders, could handle the programed material by themselves and over long periods of time without apparent loss of interest and fatigue was very heartening. It is not recommended that the program be of such length, but rather that it be broken into three or four shorter programs.

Some additional work should be done to determine when a student is ready to use the card catalog. Some of the factors to be considered would be reading level, mental age, the possesion of critical adjunct skills, personality factors, and the order in which the various types of cards should be studied.

SUMMARY

A programed instruction unit was developed which included a programed textbook, a special card catalog, and a practice set of books. The special card catalog consisted of four trays, author, title, subject, and a combined tray. The cards listed only the author, title, subject, and call number. The practice books had plain brown covers and a card in front to which the student was referred.

In use, the student begain in the programed textbook and was refereed to the special card catalog and the practice set of books. When he got the correct book he was sent on in the programed textbook, but when he go the incorrect book he was sent to a remedial frame in the programed textbook.

The subjects were third, fourth, and fifth graders from University School of Southern Illinois University. Within each grade half of the students were assigned to the Experimental group and the other half to the Control group. The students had been tested for reading and mental ability and they were all given a written pretest over the use of the library.

While the experiment was being conducted the Control group received no instruction in the use of the library. The Experimental students came two at a time and worked through the programed material, each at his own program. Two or three days after a grade had completed the program both the Experimental and Control students were given a written posttest and a performance test.

In the performance test each student was asked to find three books in the library, one each by author, title, and subject. The students were timed and rated on such things as the file trays used and the library shelves searched.

The gains, posttest less pretest were significant at the .001 level for the fourth and fifth grades, and they approached significance at the .05 level, for the third grade* In each grade the experimental group showed greater gain than the Control groups.

* The reliability of the written test was low, and would cast doubt on the reliability of these differences

There were no significant differences between Experimentals and Controls for either performance time or performance score. In the third grade, many students did not finish finding all three books during the performance test. When the Experimental and Control subjects were compared on this variable, definite differences in favor of the Experimental group were observed.

Correlation for Reading with Performance Time and Reading with Performance Score, both show the same pattern for the three grades. For the Experimental subjects, the patterns indicate that the programed material was most effective for reducing the reading factor for the third grade, less effective for the fourth grade, and least effective for the fifth grade. The correlations for the Control indicate that reading is more important for the third grade, less important for the fourth grade, and least important for the fifth grade.

The average time spent on the programed material was 1 hour 40 minutes for the third grade, 1 hour 20 minutes for the fourth grade, and 1 hour 17 minutes for the fifth grade.

The librarians observations of some side-effects are noteworthy. She was impressed with the concentration of the students as they took the program. The students worked continuously at the program with no apparent fatigue or loss of interest even though some took over two hours to complete the program.

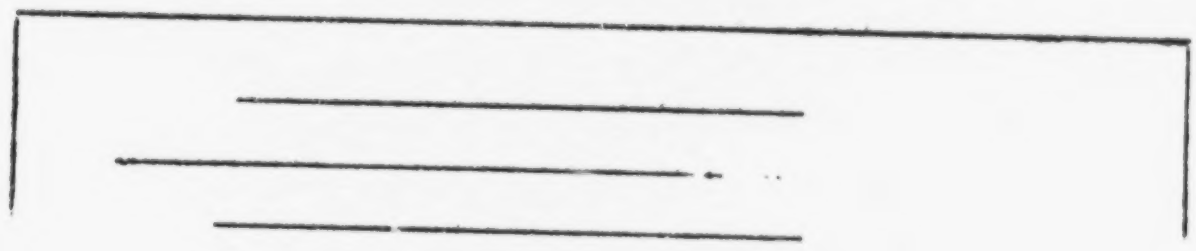
The students learned and used the professional terms of the library, using such terms as title, author, and call number. The Experimental students seemed to use the card catalog more than they had prior to acquaintance with the programed material. Interest in the catalog carried over to the Control group and down into the first and second grade.

In general this experiment indicates that third, fourth, and fifth grade children can be taught material about the card catalog with programed materials, and programed material will hold the student's interest for well over an hour.

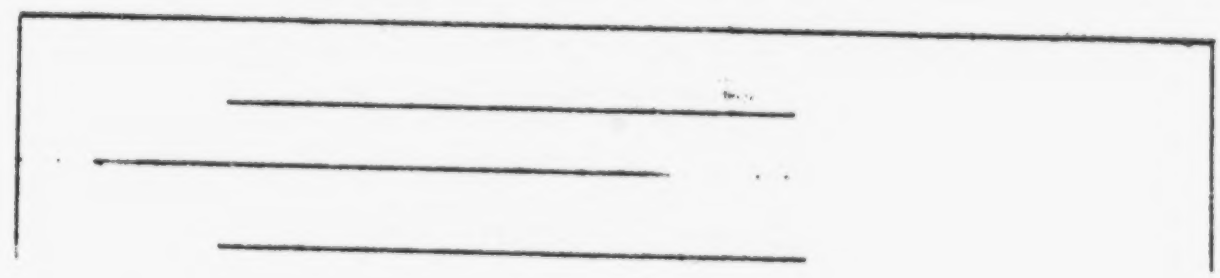
APPENDIX 1

YOUR LIBRARY

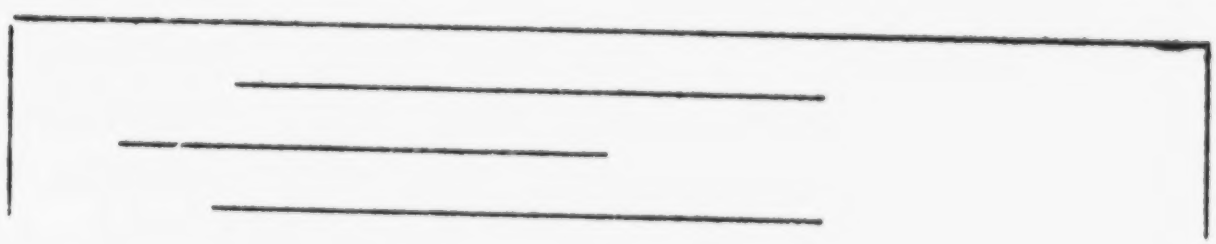
1. Write "author" where the author's name would be <u>on an author card.</u>



2. Write "title" where the title of a book would be <u>on an author card.</u>



3. Put an "X" where the <u>call number</u> for a book is given on a card catalog card.



4. What is a "call number" for a book used for?

5. How are books in a library shelved? (circle the letter for your answer).

   a. By the title of the books
   b. By the author's name
   c. By the call numbers of the books

6. To find a book by the author Frank Buck, how would you look for a card? (circle the letter for your answer).

   a. Frank Buck
   b. Buck, Frank

7. If an author has written several books, how would the books be listed? (circle your choics).
   a. all of the books would be on one card
   b. each of the books would be listed on a separate card.

8. Which of these diagrams has the books shelved correctly? (circle your choice).

D970	D762	D666	D565	D410	D370
V	A	C	A	T	S

D370	D410	D565	D666	D762	D970
S	T	A	C	R	V

D565	D666	D762	D370	D410	D970
A	C	R	S	T	W

9. Write "title" where the title of the book would be <u>on a title card.</u>

10. How are title cards arranged in the card catalog? (circle your choice).
    a. by an author's first name
    b. by an author's last name
    c. by the title of the book

11. For the book "The steep hill," the <u>title card</u> would be filed under (circle your choice)
    a. The
    b. steep
    c. hill
    d. the author's name

12. For the book Dr. Casey" the <u>title card</u> would be filed under (circle your choice)
    a. Dr.
    b. Casey
    c. Doctor
    d. the author's name

13. For the book "101 Dalmatians" the title card would be filed under,
    a. 101
    b. One hundred one
    c. Dalmatians
    d. the author's name

14. The subject listing on a card is typed in (circle your choice)
    a. red letters
    b. all capital letters
    c. either red letters or all capital letters
    d. all small letters

15. Write subject where the subject is typed as a <u>subject card</u>.

    _____

    _____

    _____

    _____

16. Books (are/are not) listed under the subject "...tory books" (circle your choice)

17. To find a book on the subject "Indians", you would (circle your choice)
    a. look under the title of the book
    b. look under the author of the book
    c. look under the subject "Indians"

18. In the card catalog for University School, how are the cards filed:
    a. author cards in one drawer, title cards in one drawer and subject cards in another drawer
    b. author and title cards together
    c. author, title, and subject cards all filed together